

THREE NEW SPECIES OF DICOTYLEDONEAE FROM ST. LUCIA, WEST INDIES

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New species of Acalypha, Bernardia (Euphorbiaceae), and Calliandra (Leguminosae) are described at this time for inclusion in volume four of the Flora of the Lesser Antilles, now in press.

Acalypha elizabethae Howard, sp. nov.

Frutex monoicus; folia ovata 15-20 x 10-12 cm. dentata, hirsuta, glandulis in sinu basali aggregatis, sessilibus, setaceis; inflorescentia axillaris, spicata ad 20 cm, ovarii verrucoso-glandulosis.

Shrub to 3 m, hirsute with long, stiff, occasionally clustered hairs. Stipules broadly lanceolate to 1.5 x 0.5 cm; blades broadly ovate, 15-20 x 10-12 cm, base cordate, apex acuminate, membranous, strongly 5 or more palmately veined at base, with 3 to 5 setaceous sessile glands in the sinus, some to 4 mm long, margin sharply dentate, teeth lanceolate when young, each toothed on the sides, becoming broader and entire on maturity, all parts hirsute with single or clustered stiff hairs. Inflorescences spicate, axillary; staminate 7-10 cm long, densely flowered, imbricated bracts several at base, ovate to 1 mm; pistillate inflorescences at different nodes, spicate, tenuous, 15-20 cm long, basal bracts clustered, ovate, to 1 mm, flowers in clusters of 2 or 3, the units separated, each subtended by an ovate bract to 2 mm, hirsute, ovary verrucose-glandular, styles laciniate from base, red. Capsule 2 mm dia., verrucose-glandular, mature seeds not seen.

St. Lucia: Gros Piton, Soufrière, May 3, 1950, R. A. Howard 11492 (holotype, A); Petit Piton, Soufrière, May 2, 1985, L. L. Jn.-Pierre 141 (A).

This species differs in its spicate inflorescences, broadly lanceolate stipules and ovate dentate leaves from Acalypha vinctina Urban, which has ovate-elliptic and crenate leaves, setaceous stipules, paniculate inflorescences and pedicellate flowers.

Acalypha elizabethae is named in tribute to Elizabeth S. Howard, my wife of many years, who explored the Lesser Antilles with me on the first of many trips in 1950, when the holotype was collected. As indicated, the species has been collected again on the summit of Petit Piton, an adjacent peak.

Bernardia laurentii Howard, sp. nov.

Frutex dioicus, totus dense strigoso pubescens; stamina 10-11; pistillum 3-carpellatum, styli crassi, recurvati, basi separati, persistentes in fructibus rigide recurvati.

Dioecious shrub to 1.5 m, compact and densely branched, all parts densely covered with a strigose pubescence. Stipules setaceous, 2 mm, caducous. Petioles stout, 3-4 mm long; blades ovate-lanceolate, 3.5-7 x 2-3.5 cm, base acute or cuneate, apex acute, both surfaces persistently and densely strigose pubescent, basal veins 2, one or both with round, flat, axillary glands, remaining veins usually 5, straight and ascending, margin with conspicuous serrate teeth often tipped with a single one or a cluster of larger stiff hairs, becoming callose on maturity and rounded. Staminate inflorescences axillary, 1.5-2 cm long, with 5 to 7 separated flower clusters, each subtended by broadly ovate bracts, 2 x 2.2 mm, apex acute with clusters of rigid hairs, densely strigose, subtending 6 to 8 flowers, maturing basipetally with pedicels 2 mm long, sepals 4, ovate, 1.3 x 1 mm, stamens 10 or 11, filaments 0.5-0.8 mm, anthers ovate, 0.3 mm; pistillate inflorescences terminal and axillary, 5-6 mm long, stoutly racemose with 3 or 4 branches, closely imbricate broadly ovate bracts 3 x 2.4-3 mm, calyx of 3, 4 or 5 ovate sepals 2.5-3 x 2-2.5 mm, pistil 3-carpellate, 2 mm long, strigose, styles deeply divided and seemingly separate for each carpel, 2 mm long, thick and strongly recurved, ovule 1 per locule. Fruit depressed globose 1 cm dia., 0.6 cm high, mature valves woody, strigose externally, shining inside; seed triangular, 6 mm long, 4 mm on each side, mottled with gray-brown scruffy material, the surface layer of dark shiny chestnut-brown color.

St. Lucia: Summit of Petit Piton, Soufrière, altitude 2438', V. Slane & L. L. Jn.-Pierre 722 (holotype, A, pistillate), Oct. 2, 1985; 721 (A, staminate), same data.

This species is clearly distinctive in the dense strigose pubescence of all parts and the seemingly separate styles for each carpel. In contrast, Bernardia dichotoma (Willd.) Muell. Arg. has a soft pubescence of mixed hirsute and stellate hairs and a slightly divided style, while Bernardia corensis (Jacq.) Muell. Arg. is sparsely pubescent when young and glabrate and shiny when mature, with short, clearly bifid styles.

Bernardia laurentii is named in honor of its energetic collector, Laurent Lawrence Jean-Pierre of St. Lucia. The Petit Piton, where the plants were collected, has only recently been accessible to climbing by those not avid and capable rock climbers. No general botanical collections were previously known from its summit. In addition to this and the previous species, a collection of the authentic Juniperus barbadensis L. is one of

the exciting discoveries of Slane and Jn.-Pierre from the summit of Petit Piton, where explorations will continue.

Calliandra slaneae Howard, sp. nov.

Frutex ad 2 m, rami abbreviati bene evoluti stipulis imbricatis persistentibus; pinnae unijugae; foliola 3-4-juga, elliptico-ovata, 5-7 x 3-4 mm, coriacea, lucentia; inflorescentia 25-30-flora, filamenta staminalia intense rubra; legumen ad 6 cm, 6-spermum.

Shrub to 2 m tall but often 3-4 m diameter, twigs brown, glabrous or slightly pubescent; axillary short shoots to 1 cm with persistent overlapping stipules. Stipules broadly ovate-triangular, acuminate, to 2.5 x 1 mm, coriaceous, strongly striate, persistent, pinnae 1 pair, rachis 7-12 mm, crispate pubescent; leaflets 3 or 4 pairs, middle ones elliptic-oblong to elliptic-ovate 5-7 x 3-4 mm, upper pair slightly falcate and larger, lower pair often very unequal and smaller, obtusely cordate and asymmetrical at base, obtuse and short apiculate at apex, coriaceous, shining, margin entire, ciliolate, midrib acentric, lower half with 2 ascending veins. Inflorescence axillary, capitate, 25- to 30-flowered, peduncle 1 cm, bracts triangular, to 1 mm, calyx campanulate 2 mm, strongly striate, 5-toothed, corolla tube 2-3 mm, lobes ovate, 0.5 mm, glabrous, staminal tube exerted to 7 mm, free portion of filaments to 2 cm, red. Legume to 6 cm x 1-1.2 cm, obtuse and apiculate at apex, margins strongly developed, seeds 6.

Type: St. Lucia, 3 miles northeast of Dennery, May 15, 1985, V. Slane 541 (holotype, A).

Additional collections:

Martinique: Grand Tourneau, Hahn 1121 (A); Espérance, Stehlé 1643 (A).

St. Lucia: Dennery, R. A. Howard & R. E. Weaver 17946 (S), G. L. Webster & J. R. Ellis 9371 (A), P. Beard 1187 (A), V. Slane 351 (A); Marquis Bay, G. R. Proctor 21664 (A), 17549 (A); Vieux Fort, R. A. Howard 11407 (A), 11437 (A); Marigot Lagoon, A. C. Smith 10186 (AS); Cap Estate, B. Sturrock 386 (A).

St. Vincent: Petit Bordel Hill, C. V. Morton 5172a (A).

The Grenadines: Bequia, H. H. & G. W. Smith 285; Petit St.

Vincent, R. A. Howard 10908 (A); Mayero, D. Fairchild 2757 (A).

Cultivated: Guadeloupe, Basse Terre, Quentin 154 (A).

This species resembles Calliandra purpurea L., from which it is distinguished by the fewer and smaller shining coriaceous leaflets and smaller fruit.

Calliandra slaneae is named in honor of Verna Slane, who has collected extensively in St. Lucia as a member of the United States Peace Corps. The herbarium being developed for the Forestry Department is the result of her work. We are grateful to her for the many collections made in assistance to the production of the Flora of the Lesser Antilles, which will include over a hundred new records for St. Lucia as a result of her efforts.